

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A semiconductor device-mounted component manufacturing apparatus for performing mounting of a semiconductor device on a circuit pattern, which is electrically connected to the semiconductor device while being brought in contact with a bump of the semiconductor device and is formed of a conductive paste on a pattern forming surface of a base material, the apparatus comprising:

a semiconductor device pressurizing device for inserting the semiconductor device from one surface of the base material and exposing an end surface of the bump at the other surface of the base material with the bump of the semiconductor device put in an exposed state or an unexposed state proximately to the pattern forming surface; and

a contact area increasing device for forming a contact area increasing portion for increasing a contact area of the circuit pattern with the bump that is exposed or located proximately to the pattern forming surface,

wherein the contact area increasing device comprises an extension portion-forming member for forming the contact area increasing portion by coming in contact with the bump or in contact with the pattern forming surface located in the vicinity of the bump.

2. (Previously Presented) A semiconductor device-mounted component manufacturing apparatus as claimed in claim 1, wherein the contact area increasing device further comprises:

an extension portion-forming member pressurizing device for pressurizing the extension portion-forming member against the bump or the pattern forming surface located in the vicinity of the bump.

3. (Original) A semiconductor device-mounted component manufacturing apparatus as claimed in claim 2, wherein

the extension portion-forming member has a cylindrical shape and forms a projecting portion that serves as the contact area increasing portion on the bump formed by a pressurizing operation for performing pressurization with the extension portion-forming member pressurizing device.

4. (Original) A semiconductor device-mounted component manufacturing apparatus as claimed in claim 2, wherein the extension portion-forming member has at its tip a rugged portion and forms a rugged portion as the contact area increasing portion on the bump formed by a pressurizing operation for performing pressurization with the extension portion forming member pressurizing device.

5. (Original) A semiconductor device-mounted component manufacturing apparatus as claimed in claim 2, wherein the extension portion-forming member has a cylindrical shape and forms a contact area increasing groove in the vicinity of the bump by pressurizing the pattern forming surface located in the vicinity of the bump by a pressurizing operation for performing pressurization with the extension portion-forming member pressurizing device, thus exposing the bump from the base material.

6. (Original) A semiconductor device-mounted finished-product manufacturing apparatus comprising:

the semiconductor device mounted component manufacturing apparatus claimed in claim 1; and

an encapsulating device for encapsulating the semiconductor device mounted component manufactured by the semiconductor device-mounted component manufacturing apparatus.

7. (Original) A semiconductor device-mounted finished-product comprising the semiconductor device-mounted component manufactured by the semiconductor device-mounted component manufacturing apparatus claimed in claim 1.

8. (Original) A semiconductor device-mounted finished-product manufactured by the semiconductor device-mounted finished-product manufacturing apparatus claimed in claim 6.

9. (Original) A semiconductor device-mounted finished-product claimed in claim 7, wherein the semiconductor device-mounted finished-product is a noncontact IC card.

10. (Original) A semiconductor device-mounted finished-product claimed in claim 8, wherein the semiconductor device-mounted finished-product is a noncontact IC card.

11. (Previously Presented) A semiconductor device-mounted component manufacturing apparatus as claimed in claim 1, wherein the extension portion-forming member comprises a hollow portion.

12. (Previously Presented) A semiconductor device-mounted component manufacturing apparatus as claimed in claim 1, further comprising a heating device coupled to the extension portion-forming member.

13. (Currently Amended) A semiconductor device-mounted finished-product manufacturing method for encapsulating a semiconductor device-mounted component manufactured by a semiconductor device-mounted component manufacturing method for performing mounting of a semiconductor device on a circuit pattern, which is electrically connected to the semiconductor device while being brought into contact with a bump of the semiconductor device and is formed of a conductive paste on a pattern forming surface of a base material, said semiconductor device-mounted component manufacturing method comprising:

inserting the semiconductor device into the base material with the bump of the semiconductor device put in an exposed state proximately to the pattern forming surface by inserting the semiconductor device into the base material from one surface of the base material and exposing an end surface of the bump at the opposite surface of the base material; and

forming a contact area increasing portion for increasing a contact area of the circuit pattern with the bump on the bump exposed on the pattern forming surface,

wherein said forming the contact area increasing portion comprises having an extension portion-forming member come in contact with the end surface of the bump.

14. (Currently Amended) A semiconductor device-mounted finished-product manufactured by a semiconductor device-mounted finished-product manufacturing method for

encapsulating a semiconductor device-mounted component manufactured by a semiconductor device-mounted component manufacturing method for performing mounting of a semiconductor device on a circuit pattern, which is electrically connected to the semiconductor device while being brought into contact with a bump of the semiconductor device and is formed of a conductive paste on a pattern forming surface of a base material, said semiconductor device-mounted component manufacturing method comprising:

inserting the semiconductor device into the base material with the bump of the semiconductor device put in an exposed state proximately to the pattern forming surface by inserting the semiconductor device into the base material from one surface of the base material and exposing an end surface of the bump at the opposite surface of the base material; and

forming a contact area increasing portion for increasing a contact area of the circuit pattern with the bump on the bump exposed on the pattern forming surface,

wherein said forming the contact area increasing portion comprises having an extension portion-forming member come in contact with the end surface of the bump.

15. (Previously Presented) A semiconductor device-mounted finished-product as claimed in claim 14, wherein the semiconductor device-mounted finished-product is a noncontact IC card.